

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims: Please amend the claims as follows

We claim:

Claim 1. (Currently Allowed) An isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2

Claims 2.–50. (Cancelled)

Claim 51. (Currently Allowed) The polypeptide of claim 1, which is an oxidase and is capable of producing H₂O₂.

Claim 52. (Currently Allowed) The polypeptide of claim 1, which is an alpha amino acid oxidase.

Claim 53. (Currently Allowed) The polypeptide of claim 52, which is a L-lysine and/or L-arginine oxidase.

Claim 54. (Currently Allowed) The polypeptide of claim 51 which generates H₂O₂ in the presence of an L-amino acid.

Claim 55. (Currently Allowed) The polypeptide of claim 54, wherein the L-amino acid is L-lysine, L-arginine, or a mixture thereof.

Claim 56. (Currently Allowed) The polypeptide of claim 1, which is a recombinant polypeptide.

Claim 57. (Currently Allowed) The polypeptide of claim 56, which is a fusion polypeptide.

Claim 58. (Cancelled)

Claim 59. (Cancelled)

Claim 60. (Cancelled)

Claim 61. (Cancelled)

Claim 62. (Cancelled)

Claim 63. (Cancelled)

Claim 64. (Currently Allowed) A composition or a kit comprising the polypeptide of claim 1 in a pharmaceutically effective amount and a diluent, a carrier and/or an adjuvant.

Claim 65. (Currently Allowed) The composition or the kit of claim 64, comprising at least one L-amino acid which is capable of increasing the cytotoxic activity of said polypeptide.

Claim 66. (Cancelled)

Claim 67. (Currently Allowed) The composition or the kit of claim 65, wherein the polypeptide is administered before the modulating substance.

Claim 68. (Currently Allowed) The composition or the kit of claim 65, wherein the L-amino acid is L-lysine, L-arginine, or a mixture thereof.

Claims 69–104. (Cancelled)

Claim 105. (Currently Amended) The polypeptide of ~~claim 1~~ 106 which has sequence identity of at least 95% to the polypeptide sequence of SEQ ID NO: 2 and which is encoded by a polynucleotide which specifically hybridizes to the full complement of SEQ ID NO: 1 under stringent hybridization conditions comprising washing for 1 h with 1x SSC and 0.1% SDS at 68°C ~~55°C~~;
wherein said polypeptide is a L-lysine and/or L-arginine oxidase having the capability to produce H₂O₂.

Claim 106. (Currently Allowed) An isolated polypeptide which is a polypeptide which has sequence identity of at least 90% to the polypeptide sequence of SEQ ID NO: 2 and which is encoded by a polynucleotide which specifically hybridizes to the full

complement of SEQ ID NO: 1 under stringent hybridization conditions comprising washing for 1 h with 1x SSC and 0.1% SDS at 68°C; and which is a L-lysine and/or L-arginine oxidase having the capability to produce H₂O₂.

Claim 107. (New) The polypeptide of claim 106 which generates H₂O₂ in the presence of an L-amino acid.

Claim 108. (New) The polypeptide of claim 107, wherein the L-amino acid is L-lysine, L-arginine, or a mixture thereof.

Claim 109. (New) The polypeptide of claim 106, which is a recombinant polypeptide.

Claim 110. (New) The polypeptide of claim 106, which is a fusion polypeptide.

Claim 111. (New) A composition or a kit comprising the polypeptide of claim 106 in a pharmaceutically effective amount and a diluent, a carrier and/or an adjuvant.

Claim 112. (New) The composition or the kit of claim 109, comprising at least one L-amino acid which is capable of increasing the cytotoxic activity of said polypeptide.

Claim 113. (New) The composition or the kit of claim 110, wherein the polypeptide is administered before the modulating substance.

Claim 114. (New) The composition or the kit of claim 110, wherein the L-amino acid is L-lysine, L-arginine, or a mixture thereof.